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INDIANA COMMENTS ON EPA'S PROPOSED INTERSTATE AIR QUALITY RULE

Indiana offers several specific comments on this proposed rule. Attached are three documents. Attachments 2 and 3 are from the Lake Michigan Air Director's Consortium (LADCO) which conducted modeling and a technical analysis of this rule on behalf of Indiana and other midwestern states. Attachment 2 describes the modeling LADCO performed and Attachment 3, technical comments based upon the results of the modeling. Indiana requests that EPA consider this information in finalizing the rule. Attachment 4 is a summary of Indiana's projected ozone design values from the LADCO modeling. It contains information from 12 km and 36 km grid runs applied to 2000-2002 and 2001-2003 monitored values.

PROPOSED REDUCTIONS

Emission caps

The timing and extent of reductions should reflect what is reasonably achievable on a schedule to meet health standards as expeditiously as possible and be coordinated to the extent possible with states' obligations to meet the health standards.

IDEM is concerned that EPA, in their modeling in Section IX, may have overestimated the benefit of the proposed rule. Modeling conducted by the LADCO states indicates that more areas in Indiana, and the Midwest in general, remain above the ozone standard after the reductions in the proposed rule than EPA's modeling shows. We urge EPA to examine LADCO's modeling closely. We also urge EPA to apply modeling results to 2001 - 2003 ozone season data since this is the information upon which designations are being made. As illustrated in Attachment 4, under several modeling scenarios, these newer data result in more areas in Indiana over the standard. For this reason, the level of control is an issue. Indiana will find it difficult, as will other states, to obtain additional emission reductions from EGUs after implementation of this rule, especially given the structure of the proposed trading program. The documentation for the IAQR indicates that, particularly for PM_{2.5}, local controls may be considerably less effective in achieving attainment than regional controls.

We urge EPA to be thorough when evaluating highly cost effective controls for the IAQR. EPA based its NO_x budget on an emission rate equal to 0.15 lb/mmBtu for 2010 and on an emission rate equal to 0.125 lb/mmBtu for 2015 (page 4618). In establishing the EGU budget under the NO_x SIP Call, EPA used 0.15 lb/mmBtu as an emission rate achievable using SCRs. However, it cited examples where SCRs were achieving significantly lower emission rates (63 FR57413, October 27, 1998), some as low as 0.04 lb/mmBtu. Since then SCR technology has improved and SCRs are now capable of achieving emission rates as low as 0.05 lb/mmBtu as indicated by EPA in the proposed rule (page 4612). There are now also data available for installed systems from the past year. We urge EPA to review its 1998 finding as well as current information and consider the use of an emission rate lower than 0.15 lb/mmBtu.

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Phase II reductions

EPA's analyses show that the IAQR will bring PM_{2.5} values only slightly below 15 $\mu\text{g}/\text{m}^3$. The states may have very limited options for controlling regional transport from this sector in the future, which will be particularly important in the event that the PM air quality standard is revised downward. EPA's documentation states that local measures may only be able to practically achieve less than 1 $\mu\text{g}/\text{m}^3$ reductions. We urge EPA to ensure that the Phase II cap level be set after a re-examination of highly cost effective control levels associated with the cap and trade program in 2015 in light of current operating rates.

Banking

Encouraging early reductions to meet the 2010 deadline is a positive step that IDEM supports. However, IDEM is concerned about the use of allowances banked under the Title IV program prior to 2010. To allow unrestricted use of this pool of allowances after 2010 may effectively and significantly extend the timeframe for attaining the health standards. It appears that EPA will propose in the SNPR that the cap and trade program will allow banking of NO_x allowances with no restrictions. This proposal would not be consistent with the flow control provisions that EPA felt were necessary in the NO_x trading program. EPA does not discuss why it is not including flow control provisions.

EPA has proposed to allow for the carry over of all Title IV banked allowances whether the allowances were generated through early reductions or compliance with Title IV. Thus, significant numbers of allowances could be used in 2010 without any corresponding reductions associated with the IAQR. EPA should limit the time period that the early SO₂ reductions can be used consistent with the treatment of Compliance Supplement Pool allowances under the NO_x SIP call or increase the ratio for deduction.

EPA does have some restrictions on the use of the SO₂ allowances in the proposal described in Section VIII. Starting in 2010, allocated allowances would be deducted on a 2:1 basis and in 2015 the ratio increases to 3:1. This restriction is only applicable to allowances allocated during those time periods, but not pre-2010 banked allowances. EPA states that it expects approximately 10.5 million allowances will be banked in 2010 and any pre-2010 allowances could be used on a 1:1 ratio any time in the future. It is not clear whether or not the 10.5 million includes early reduction credits. If early reduction credits were not included in this estimate, a significantly larger pool of allowances would be available for deduction at the 1:1 ratio. EPA states that it expects approximately 1.3 million allowances of the 10.5 million allowances to be used each year for compliance. It appears that use of these allowances at a more favorable deduction ratio could extend ultimate compliance for 10 or more years. As a result, Indiana and other states' efforts to demonstrate compliance with the PM_{2.5} standard by 2010 will be further complicated.

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IMPACT UPON INDIANA'S NO_x RULE

A cap and trade system is a good method to achieve necessary reductions of NO_x and SO₂ in a cost-effective manner. Such a trading program should be established in a manner that is compatible with existing state NO_x rules and the Title IV program.

There are many issues to be resolved in moving from the state rules adopted as a result of the NO_x SIP program to the IAQR cap and trade program. In particular, Indiana has energy efficiency and renewable energy set-asides in our NO_x rule, as well as set-asides for new units. Indiana also has specific allocation methodologies for EGUs and fixed allocations for non-EGUs. EPA has included in the proposed rule provisions for auctions and new source set-asides, but states need to be able to retain authority to establish set-asides that meet their needs, such as for energy efficiency and renewable energy projects and for new sources. These set-asides were developed with EPA encouragement and they have been factored into business plans. Removal of these programs could damage EPA credibility and cause economic or other hardships to affected companies.

Seasonal to annual compliance period for NO_x

EPA states that the more stringent annual limit will assure reductions during the ozone season, but the proposed emission limits for 2010 are the same as the NO_x SIP call. There does not appear to be technical documentation for this statement. Indiana urges EPA to retain a summertime budget within the annual budget. Not only would that assure that sufficient NO_x reductions continue to occur during the ozone season, but it would also enable the large non-EGUs to continue to participate in the trading program.

The overall budget could be separated into ozone season and non-ozone season budgets with the use of allowance serial numbers in the same manner as is done to make sure a source is not using a future year allowance for current compliance. The serial number would reflect the proper use of the allowance (for example, add an O for ozone season and an N for non-ozone season). EGUs would be required to maintain records for both and non-EGUs would maintain records for the ozone season (unless additional reductions would be required outside the ozone season) and the true up could still be at the end of the year as proposed. Only O allowances would be allowed for ozone season compliance deductions. The use of CEMS by all participants makes it simple for sources to track their emissions by season. This system would ensure sufficient ozone season reductions to maintain compliance with the ozone standard.

EPA discusses the possibility of establishing separate ozone and non-ozone season budgets in section VI.D.2. EPA requests comments about using this as alternative for calculating the budget for Connecticut, but then goes on to say that for states with annual reduction requirements, the separate budgets would be summed to arrive at the state budget. We understand that this approach provides greater flexibility, however we remain concerned, depending on the ultimate level of the emission caps, that this approach could undermine the benefits of the control program during the ozone season. If EPA would simply overlay non-ozone season reductions over the existing NO_x trading program, the transition would be much easier.

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TIMING OF REDUCTIONS

Indiana has concerns with the timing of emission reductions. While control technology is readily available, there are many other issues involved in determining what can reasonably be done in a given time. We urge EPA to evaluate available information to be as fair and aggressive as possible in determining reductions in order to achieve clean air goals.

Timing is a particular concern for ozone or PM_{2.5} nonattainment areas with attainment dates prior to 2010. The timing in this proposed rule appears to be determined to a large extent by the labor requirements of boilermakers. EPA recommends a 2010 implementation date for phase I. However, the CAA will require the PM_{2.5} standard to be met by the end of 2009. Given that this is a 3-year average, controls should be implemented before 2007. A 2010 implementation deadline for EGU controls as proposed by the IAQR, especially with generous banking, will have minimal effect in reducing the 2007 - 2009 design values in these areas. However, given the potential for extensions, effective controls implemented in 2009 could still meet the CAA timeline requirements. Since this is a federal rule, EGUs can begin to plan for these controls before state rules become effective, for example, a step that could save 1 to 1 1/2 years in Indiana.

If the IAQR does not become effective until 2010, one way the rule can help with reductions in the 2007 - 2009 timeframe is to offer early reduction credits. As described above, an early reduction program should be constructed so that there is an incentive to achieve these reductions but without hindering attainment of the NAAQS in later years. The SNPR should have the details of this program well defined as an incentive for companies to apply early controls before state rulemaking is completed.

In those states that are covered by the NO_x SIP Call, the NO_x controls are likely to proceed at a faster pace than projected by EPA. Utilities in these states have either already installed or would have installed a substantial portion of the IAQR projected NO_x post-combustion controls in the near future. In addition, in the process of planning for NO_x SIP Call, many of these utilities have done a substantial amount of planning work. Their resources can be more efficiently used in installing sulfur dioxide controls. This will help achieve Phase I reductions sooner than 2010.

It is important that EPA finalize rulemaking as early as possible. With ozone attainment demonstration SIPs due in May 2007, states will need to have completed the attainment demonstration analysis and modeling by the end of 2005. This schedule allows Indiana 18 months for rule development and a SIP submittal, which is not enough time considering the complexity of an attainment demonstration and the state rulemaking process. For a timely SIP submittal, we must know what emission reductions we are getting from the IAQR as early as possible to complete our analyses and develop an attainment demonstration, including negotiations with our neighboring states.

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If this rule does become effective in 2010 and it will result in bringing a nonattainment area into attainment, EPA should provide guidance on how to develop a SIP to take credit for these controls, without the need to implement more expensive, less effective or otherwise unnecessary local controls in the years before 2010.

INCLUSION / EXCLUSION OF OTHER SOURCES

EPA is proposing reductions only for EGUs. The rule would give states the alternative to obtain some or all of the reductions from other source categories. However, if states do so, it appears that EGUs within the state will not be able to participate in the cap and trade program (page 4622). In addition, EPA is looking for comments on what assumptions and methods for establishing sector inventories should be specified in the supplemental proposal (SNPR) and the final rule.

Non-EGUs

EPA (page 4610) requested comments on including other source types in this rule. EPA has not proposed NO_x emission reductions for non-EGUs in this proposal, because the cost effectiveness of integrating NO_x control with SO₂ controls was not clear.

Indiana has a particular concern with the large industrial boilers regulated under the NO_x SIP Call, as required by the federal rule. IDEM understands the proposed rule to state that although EPA expects these sources to continue to control their NO_x emissions, they would no longer be able to participate in the regional trading program, which will be based on an annual budget and limited to EGUs. Indiana's non-EGUs have complied with the NO_x SIP Call and made compliance decisions based their ability to participate in the trading program. EPA has not fully evaluated the effect of this proposed change on these sources.

In 2002, non-EU boilers in Indiana accounted for a total of 19,327 tons of NO_x and 70,998 tons of SO₂ emissions. In comparison EPA estimates that for 2010, emissions from Indiana EGUs for SO₂ and NO_x will 670,400 tons and 239,000 tons respectively (69FR4588, January 30, 2004). Though non-EGUs are substantially lower emitters in comparison to EGUs they should still be evaluated for control.

Under the NO_x SIP Call, EPA had determined that controlling industrial boilers, cement kilns and internal combustion engines was cost effective. In EPA's model cap and trading rule, industrial boilers were included as core sources. EPA should not delay this rule to examine non-EGUs. Rather, it should allow these sources and other non-EU sources to be included in the cap and trade program along with EGUs, should states in the process of developing their PM and 8-hour ozone SIPs determine that emission reductions from those sources will be cost effective and they meet the cap and trade program criteria. EGUs should not be excluded from the regional cap and trade program if non-EGUs are included.

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MISCELLANEOUS

Auctions

EPA states that it believes states should retain a portion of the allowance budget for an auction. The revenues could be used for local reductions in nonattainment areas. EPA believes the auctions would be beneficial, but is concerned about making these mandatory. It is not clear whether auctions would apply to NO_x, SO₂ or both. Depending on what is needed to implement an auction system, this program could require a lot of effort and resources. EPA should make auctions a voluntary program and provide guidance and assistance.

New units in Acid Rain Program

Currently, new units entering the ARP must go to the market to obtain SO₂ allowances (there is no new unit set-aside). EPA says that if individual states want to provide allowances to new units, then states will have to develop a mechanism and discuss various options that could be used to provide allowances for new units. One option appears to provide allowances to the states for allocation to new units and the other would have EPA issuing the allowances. EPA will provide more discussion in the SNPR. EPA should be very clear in its discussion because of the limitations associated with maintaining the ARP requirements. EPA also has to be very clear about who has the responsibility for developing the mechanism. EPA says it is the states that will have to create the mechanism, but then discusses options where EPA essentially creates the mechanism. There is also a question of the need for a process that was not included in the ARP. There is no discussion of problems with the current process.

Facility vs. unit level compliance

EPA indicates that the overdraft accounts used under the NO_x program can be complicated and do not reduce the burden of unit-level accounting. EPA states that it is considering assessing compliance at the facility level and will provide more discussion in the SNPR. EPA needs to be clear about whether this proposal is only for compliance or also alters the allocation methodology that allocates to individual units.

Allowance allocation timing

It appears that EPA will mandate the timing of allocations (page 4635). EPA claims that under this proposal all units would have equal time for developing compliance strategies and carrying out trades. EPA would also be able to record allowances at one time. This is different than the NO_x program that allowed individual states to develop their own allocation schedule. There is no discussion of problems that have been encountered with the NO_x program or what will happen with allowances that have already been allocated under an existing state program.

Interpollutant trading

EPA has asked for comment on inter-pollutant trading (page 4635). We oppose inter-pollutant trading, since many parts of Indiana are affected by both transported ozone and fine particulates and precursors. Given the inter-relationship of NO_x and SO₂ and to have

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confidence in our attainment demonstration SIP, we need to have the certainty of adequate reductions of both pollutants, both within Indiana and from upwind states. To compensate for the lack of certainty, it seems that we would be forced to over-control local sources in order to demonstrate attainment. Additionally, inter-pollutant trading adds significant complexity for emissions allocations and compliance determinations.

Annual heat input assumptions

EPA's previous method of projecting heat input using IPM and growth factors was controversial, slowed the process, and may ultimately have been inaccurate. Using 1999 - 2002 emissions in this calculation is a good choice since it is tied to actual numbers.

Emission Inventory

LADCO analysis of modeled inventories shows considerable discrepancies in projected utility inventories when controls were applied generally state-wide to all sources (as EPA used in their modeling) and when controls were applied specifically to each unit as projected by IPM. This information is provided in the LADCO technical comments attached and we urge EPA to examine this information.

Indiana has also noted some errors and is still evaluating the inventory and wishes to reserve the right to work with EPA after the comment period to make necessary corrections.